AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph beginning at page 2, line 10, with the following rewritten paragraph:

Referring to FIGS. 1a to 1b, the two-dimensional Octet truss 101 and the two-dimensional Kagome truss 102 are compared, that is, the unit cell 102a of the Kagome truss 102 has an equilateral triangle and a regular hexagon mixed in each face, dissimilar to the unit cell 101a of the Octet truss 101. FIGS. 2a -2c and 3a-3c show a single layer of the three-dimensional Octet truss 201 and the three-dimensional Kagome truss 202, respectively. Comparing the unit cell 201a of the three-dimensional Octet truss 201 with the unit cell 202a of the three-dimensional Kagome truss 202, one significant features of the 3D Kagome truss 202 is that it has isotropic mechanical properties. Therefore, the structural materials or other materials based on the Kagome truss have a uniform mechanical and electrical property regardless of its orientation.

Please replace the paragraph beginning at page 4, line 7, with the following rewritten paragraph:

By the way, a common fiber reinforced composite material is manufactured in the form of thin two-dimensional layer, which is laminated when a thick material is required. Due to de-lamination phenomenon between the layers, however, its strength tends to be deteriorated. Therefore, first the fiber is woven in a three-dimensional structure, and then a matrix such as resin, metal, or the like is combined with the structure. FIGS. 5a-5b are ~~is a~~ perspective views of the woven fiber in this three-dimensional fiber-reinforced composite material. Instead of fibers, a material such as a metallic wire having a high stiffness can be woven into a three-dimensional cellular light structure as shown in FIGS. 5a-5b. However, it also does not have the above-described ideal Octet or Kagome truss structure so that it has a decreased mechanical strength and anisotropic material properties. Consequently, the composite material using the three-dimensional woven-fiber comes to have an inferior mechanical property.

Please replace the paragraph beginning at page 9, line 14, with the following rewritten paragraph:

FIGS. 1a-1b are ~~is~~ a two-dimensional views comparing the conventional two truss structures, i.e., the Octet truss and Kagome truss;

Please replace the paragraph beginning at page 9, line 16, with the following rewritten paragraph:

FIGS. 2a-2c show~~s~~ a plan and side view of a single layer in the conventional Octet truss structure and a perspective view of a unit cell thereof;

Please replace the paragraph beginning at page 9, line 19, with the following rewritten paragraph:

FIGS. 3a-3c show~~s~~ a plan and side view of a single layer in the conventional Kagome truss structure and a perspective view of a unit cell thereof;

Please replace the paragraph beginning at page 9, line 25, with the following rewritten paragraph:

FIGS. 5a-5b show ~~is~~ a three-dimensional perspective view and detailed structure showing a fiber-reinforced composite material manufactured by weaving fibers according to the conventional technique;

Please replace the paragraph beginning at page 9, line 29, with the following rewritten paragraph:

FIG. 6 is a plan view of a wire-woven network formed of three orientational-parallel wire groups and similar to the two-dimensional Kagome truss in FIGS. 1a-1b;

Please replace the paragraph beginning at page 10, line 10, with the following rewritten paragraph:

FIGS. 10a-10c are ~~is a~~ perspective views of the three-dimensional cellular light structure of FIG. 9 as seen from different angles;

Please replace the paragraph beginning at page 10, line 13, with the following rewritten paragraph:

FIGS. 11a-11b is a perspective view of a vertex of the regular tetrahedron formed by the three orientational-wire groups in the structure of FIG. 9 where the vertex is seen from the front thereof;

Please replace the paragraph beginning at page 10, line 17, with the following rewritten paragraph:

FIGS. 12a-12b are ~~is a~~ perspective views of unit cells formed by a different wire-intercrossing mode in FIGS. 11a-11b;

Please replace the paragraph beginning at page 10, line 31, with the following rewritten paragraph:

FIG. 6 is a plan view of a wire-woven network formed of three orientational-parallel wire groups and similar to the two-dimensional Kagome truss in FIGS. 1a-1b, FIG. 7 is a perspective view of a unit cell corresponding to the portion A in FIG. 6 when the two-dimensional structure of FIG. 6 is transformed into a three-dimensional structure similar to the three-dimensional Kagome truss in FIGS. 3a-3c, FIG. 8 is a perspective view of a unit cell corresponding to the one of the Kagome truss in FIGS. 3a-3c where the unit cell is constructed using six orientational groups of wires, FIG. 9 is a perspective view showing a three-dimensional cellular light structure of Kagome truss type, which is manufactured using six orientational-wire groups, FIGS. 10a-10c are ~~is a~~ perspective views of the three-

dimensional cellular light structure of FIG. 9 as seen from different angles, FIGS. 11a-11b are ~~is a~~ perspective views of a vertex of the regular tetrahedron formed by the three orientational-wire groups in the structure of FIG. 9 where the vertex is seen from the front thereof, FIGS. 12a-12b are ~~is a~~ perspective views of unit cells formed by a different wire-intercrossing mode in FIGS. 11a-11b, FIG. 13 is a perspective view of a three-dimensional cellular light structure of Octet truss type where the structure has a different length between the intersection points of wires, FIG. 14 is a perspective view of a unit cell in the structure of FIG. 13, and FIG. 15 is a flow chart showing the manufacturing procedures of the three-dimensional cellular light structure according to the invention.

Please replace the paragraph beginning at page 11, line 27, with the following rewritten paragraph:

FIG. 6 is a plan view of a wire-woven network formed of three orientational-wire groups 1, 2 and 3, which is similar to the two-dimensional Kagome truss in FIGS. 1a-1b. In the network, which is woven in three axes using the wire groups 1, 2, and 3, two lines of each intersection point are intercrossed at 60 degree or 120 degrees. Each truss element constituting the Kagome truss is substituted with a continuous wire, and thus the structure of the invention has a great similarity to an ideal Kagome truss, except that the continuous wire make a curvature while intercrossing each intersection point thereof.

Please replace the paragraph beginning at page 14, line 11, with the following rewritten paragraph:

In this way, a unit cell similar to the one of the three-dimensional Kagome truss shown in Figs. 3a-3c can be constructed through above-described wire arrangement of six orientational-wires, which is shown in FIG. 8.

Please replace the paragraph beginning at page 14, line 20, with the following rewritten paragraph:

As shown in FIGS. 10a-10c, the three-dimensional cellular light structure 11 of truss-type appears differently depending on the viewing directions. In particular, the figure at the bottom of FIGS. 10a-10c is almost similar to the two-dimensional Kagome truss, and is seen from the direction of one wire among the six orientational-wire groups. That is, the three-dimensional cellular light structure 11 of the invention is appeared as the same shape and pattern when seen along the axial direction of each of six wires, which are intercrossed with each other at the same angle (60 degrees or 120 degrees).

Please replace the paragraph beginning at page 14, line 30, with the following rewritten paragraph:

Each intersection point, at which three wires are intercrossed, corresponds to a vertex of the regular tetrahedron members. As shown in FIGS. 11a-11b, the wires are intercrossed in two different modes when seen from the right front of the vertex. As illustrated respectively in the upper and lower figures of FIGS. 11a-11b, the three wires may be intercrossed in such a manner to be overlapped clockwise or counterclockwise. In the case where the wires are intercrossed in a clockwise-overlapped pattern, the regular tetrahedron constituting a unit cell has a concave form as shown in the upper illustration of FIGS. 12a-12b If the wires are intercrossed in a counterclockwise-overlapped pattern, the unit cell has a convex form. Nevertheless, both cases may result in a cellular light structure, which is intended in the present invention and has a similar structure to the ideal Kagome truss, or the Octet truss as described below.

Please replace the paragraph beginning at page 15, line 13, with the following rewritten paragraph:

By the way, the cellular light structure shown in FIGS. 10a-10c has the same length of wire between all the intersection points. If the wire length of one edge of the tetrahedron member is made shorter, and that of its neighboring tetrahedron member is made relatively longer, a similar structure to the ideal Octet truss of FIGS. 2a-2c can be obtained. In this case, the two regular tetrahedron members, which constitute the unit cell of the cellular light structure, do not have the similarity ratio of 1:1.

Please replace the paragraph beginning at page 17, line 22, with the following rewritten paragraph:

On the other hand, if wires of a few millimeters are used, the resultant cellular light structure can be used as a frame structure for reinforced composite material. For example, using as a basic frame the three-dimensional cellular light structure of the inventions, a liquid or semi-solid resin or metal may be filled into the empty space of the structure and then solidified to thereby manufacture a bulk reinforced composite material having a good rigidity and toughness. Furthermore, in the case where the three-dimensional cellular light structure of Octet type shown in FIGS. 12a-12b is used, the smaller one of the two tetrahedron members constituting the unit cell may be filled with resin or metal to manufacture a porous reinforced composite material. This reinforced composite material is isotropic or almost isotropic and thus has uniform material properties regardless of its orientation. Therefore, it can be cut into any arbitrary shapes. Also, the wires are interlocked in all directions, thereby preventing damages such as de-lamination or pull-out of wires, which can occur in the conventional composite materials.